

(2) heavy chains (H chains) each comprising a human H chain C region, and H chain V region of a mouse monoclonal antibody to human IL-6R;

wherein the mouse L chain V region includes an amino acid sequence shown in SEQ ID NO: 28 and the mouse H chain V region includes an amino acid sequence shown in SEQ ID NO: 30.

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71. An isolated DNA encoding an L chain comprising a human L chain C region and an L chain V region of a mouse monoclonal antibody to human IL-6R wherein the human L chain C region is a human Kc region and the L chain V region includes the amino acid sequence set forth in SEQ ID NO: 28.

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72. An isolated DNA encoding an H chain comprising a human H chain C region and an H chain V region of a mouse monoclonal antibody to IL-6R, wherein the human H chain C region is a human  $\gamma$ -1C region and the H chain V region includes the amino acid sequence set forth in SEQ ID NO: 30.

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73. An expression vector comprising a DNA coding for an L chain comprising a human L chain C region and L chain V region of a mouse monoclonal antibody to human IL-6R, wherein the human L chain C region is a human Kc region, and the L chain V region includes an amino acid sequence shown in SEQ ID NO: 28.

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74. An expression vector comprising a DNA coding for an H chain comprising a human H chain C region and H chain V region of a mouse monoclonal antibody to human

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IL-6R, wherein the human L chain C region is a human Kc region, and the L chain V region includes an amino acid sequence shown in SEQ ID NO: 30.

75. A host cell co-transformed with:

(1) an expression vector comprising a DNA coding for an L chain comprising a human L chain C region and an L chain V region of a mouse monoclonal antibody to human IL-6R, and with

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(2) an expression vector comprising a DNA coding for an H chain comprising a human H chain C region and an H chain V region of a mouse monoclonal antibody to IL-6R, wherein the human L chain C region is a human Kc region; the L chain V region includes an amino acid sequence shown in SEQ ID NO: 28, the human L chain C region is a human  $\gamma$ -1C region and the H chain V region includes an amino acid sequence shown in SEQ ID NO: 30.

76. A method of producing the chimeric antibody to human IL-6R according to claim 67, said method at least comprising the steps of:

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(a) culturing host cells co-transformed with a first expression vector and a second expression vector, for a time and under conditions sufficient for expression to occur, wherein the first expression vector comprises DNA encoding a human L chain C region and a mouse L chain V region including the sequence set forth in SEQ ID NO: 28 and the second expression vector comprises DNA encoding a human H chain C region and a mouse H chain V region including a sequence set forth SEQ ID NO: 30; and

(b) recovering the chimeric antibody from the culture.